



Bioterrorism

When public agency officials met over a year ago about a bioterrorist attack on the Bay Area, Dawn Kataoka Manley was at the front of the room.

The attack was a hypothetical one, part of a program designed by Manley's department at Sandia. The simulation showed public health workers, police officers and others what the very real consequences of an attack could be.

"You begin to see people coming down sick, then you see them showing up in various hospitals," explained Manley, who led participants through the attack. In this version of the war game, public health officers had to decide things like who would get treated and how.

Manley is a 31-year-old systems analyst who's been working on defense against chemical and biological terrorism since 1999, when she first



came to Sandia fresh out of graduate school at Princeton University.

She saw her work gain attention - and support - following the 2001 anthrax scare. "With the formation of the Department of Homeland Security and all the new threats and concerns we have, it's an exciting time to work in the area of national security."

Today, her team of scientists is expanding the simulation described above to see how new technologies - like highly sensitive sensors - might affect the course of a future attack.

They also develop systems involving high-tech environmental sensors to ward off attacks on public facilities like San Francisco International and other airports.

The work is a far cry from the work Manley did in graduate school in the arcane area of "interfacial phenomena," or the study of how thin-liquid films move across surfaces. But Manley says she wanted to apply her academic training in chemical engineering to broader problems - an opportunity that Sandia offered.

Plus it gave the Central Valley native a chance to get back to her roots. "I did my undergraduate [degree] here at Stanford, so I wanted to come back," she added.

Manley and her husband, Dave, a software engineer she first met while at Stanford, were married just over a year ago and now live in Livermore. Their all-consuming weekend activity lately has been gardening - the two have been battling an enormous willow tree and the local clay soil to put in a vegetable garden.

In the rest of her spare time, Manley cooks and teaches aerobics in the lab's fitness program.

"I don't think I could have picked a better job for myself, one that matches my interests and my skill sets," says Manley. "And I work with really interesting people - talented people who care very much about national security and performing a service for our country. It's just a lot of fun." (photo courtesy of Sandia)

